

Marin County
Livestock & Agricultural
Crop Report
2004

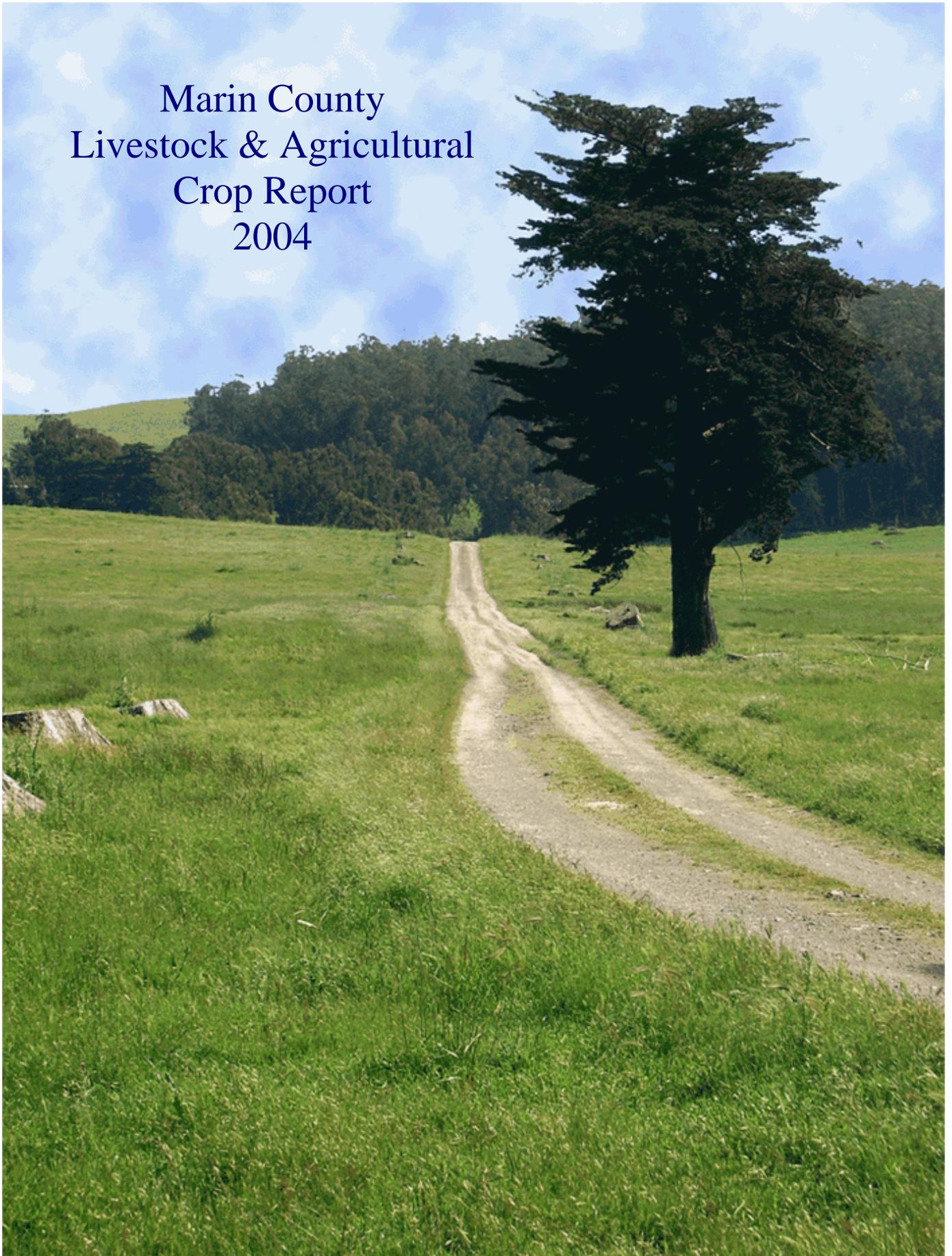


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Cover photo: Manuel Brazil Ranch, Tomales

Photo credits: Laurel Thomassin, Marin County Department of Agriculture

Photo editing: Steve Quirt, Organic & Sustainable Agriculture Coordinator – Univ. of California Cooperative Extension, Marin County

This report is available at our web site:
www.co.marin.ca.us/depts/ag/main/index.cfm



STACY K. CARLSEN
COMMISSIONER/DIRECTOR
FRED W. CROWDER
DEPUTY COMMISSIONER/DIRECTOR

April 1, 2005

A. G. Kawamura, Secretary
California Department of Food and Agriculture
And
Marin County Board of Supervisors
Harold C. Brown, President, District 2

Susan Adams,	District 1	Steve Kinsey,	District 4
Charles McGlashan,	District 3	Cynthia Murray,	District 5

In accordance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Annual Crop and Livestock Report for 2004. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2004 gross value of all production was \$54,897,462. This represents an increase of \$6,222,308 or 11% from the 2003 total agricultural production value. The report represents gross returns to the producer and does not indicate actual net profit. Utilizing the economic input/output model, the estimated economic impact of the total sales equals \$84,606,750.

Milk is the long standing, premier commodity for Marin, and this year accounts for over 60% of the crop report's total value. Milk increased in value by \$8,099,730 (24%) due to strong consumer demand and shrinking milk supply (fewer cows on dairy farms).

Livestock and poultry value decreased by \$1,710,687 or 13%. Two main factors contributed to this decline: 1) One of the poultry producers left Marin County in mid 2004 due to California production costs and moved their operation to the east coast, and 2) Beef cow numbers were adjusted downward by 2,000 to be in line with Census of Agriculture figures.

Prices received for sheep, beef and dairy cattle increased from last year's market prices. Prices went up as consumption and demand for protein provided by beef and lamb was up in 2004, partially due to the increased popularity of low carbohydrate diets and the closure of the Canadian border blocking the normal importation of cattle.

Aquaculture experienced a 13% increase in value over last year, due mostly to increased prices and higher planting rates leading to increased harvests.

The value of field, fruit and vegetable production, excluding wine grapes, went down by \$548,690, an 8% decrease in total value partially due to revised reporting of crop values. The total value of wine grapes increased by \$35,045 or 13%. This is due to an increase in the wine grape acreage resulting in a 16% increase of total tons produced, however, the market experienced decreased prices and there was a poor set due to cool, wet spring weather at time of bloom. Nursery crops experienced a decrease in value of \$22,126 or 3%.

My appreciation goes to the many growers, individuals and organizations for their cooperation in providing the information necessary for this report and special thanks to the members of my staff, Laurel Thomassin and Amanda Stephens.

Respectfully submitted,

Stacy K. Carlsen
Agricultural Commissioner

Sustainable Pasture Management

One of the most essential components of sustainable ranching is a sound pasture management program; the ability to grow and maintain ample grass and forbs (herbaceous broad-leaved plants such as wildflowers and clovers) for grazing livestock, and being able to do so on a sustainable basis. Ranchers adapt their mode of operations to the conditions of the natural environment, instead of attempting to overload or modify the environment to fit a particular production plan. A conservative, low-input approach toward pasture management in general will provide the most profit with the least risk, while offering benefits to the soil, air, water, native plants and wildlife resources.

Livestock grazing is a good land management tool in Marin where hilly pastures are frequently shrouded with fog and cool temperatures. Much of Marin's agricultural products are grass-based and account for over 99% of the agricultural land, and about 77% of the county's gross agricultural income. Grass-based products include beef, lamb, milk, cheese, butter and other dairy products, grass hay, and silage. Managing livestock numbers, postponing the grazing of stressed pasture until the pasture has had time to recover, incorporating a grazing plan consisting of pasture rotation, managing and reducing the numbers of weedy, non-nutritious vegetation while providing for an environment to encourage healthy plant revival are all components of a successful pasture management plan.

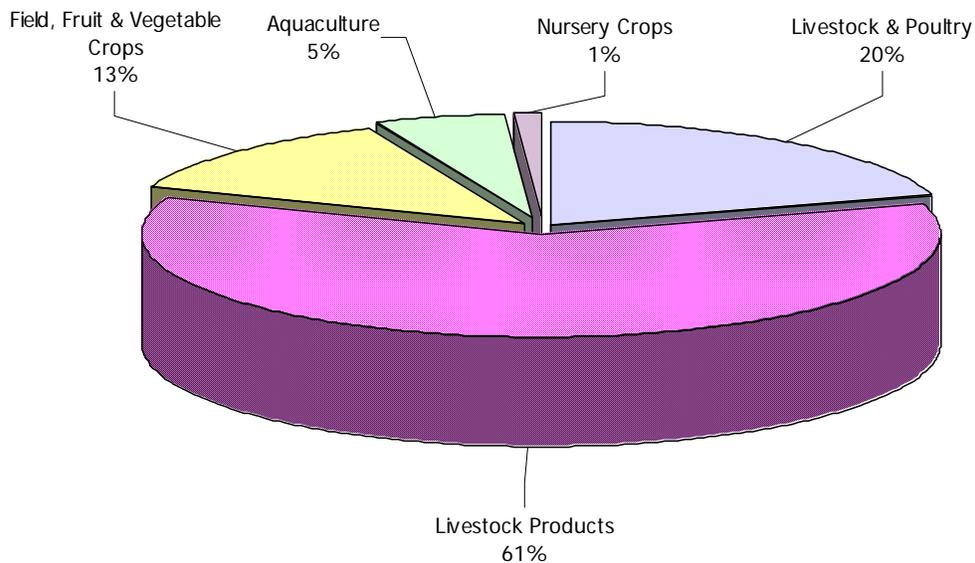
To manage pastures properly, one of the first things you must be able to do is identify what you're working with. Most forage is a combination of various grasses and legumes. Legumes produce excellent feed and supply additional nitrogen to the soil. Pasture plants have special ways to cope with grazing. Grazing may actually stimulate pasture growth because old or dead leaves no longer shade young leaves and grazing top growth encourages development of new growth at the crowns. Many pastures have a seed bank of desirable native forage species that have not had an opportunity to germinate and survive under continuous grazing and/or suppression by non native species.

Marin's lush, coastal grasslands with their long growing season, fit well with Marin's grass fed livestock certification program. The main purpose of the program is to provide local grass fed and finished livestock producers with the incentive to pursue innovative and sustainable animal agriculture principles, encourage sustainable agricultural and land management practices, increase marketing opportunities, and promote more natural animal management practices.

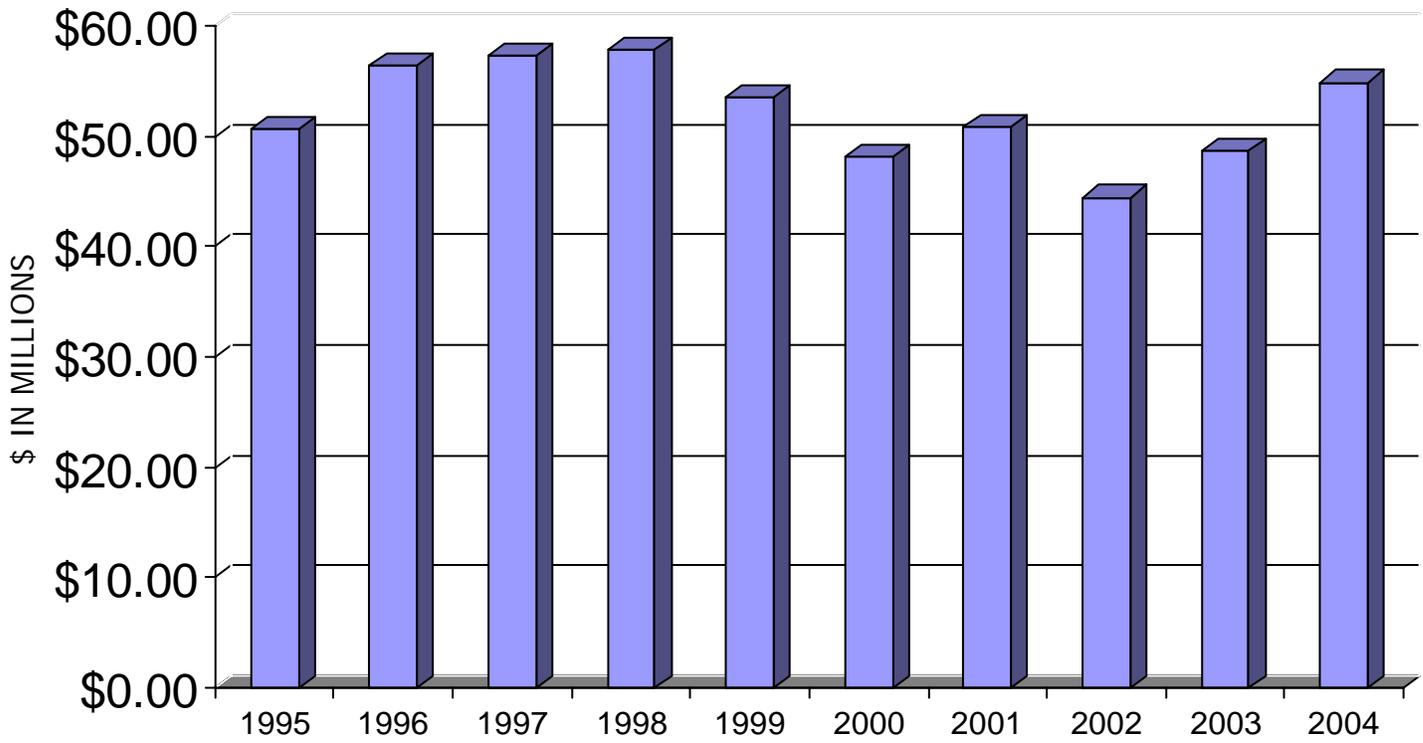
Summary of Production

	<u>2004</u>	<u>2003</u>
Livestock Products	\$ 33,244,138	\$ 25,137,035
Livestock & Poultry	\$ 11,126,083	\$ 12,836,770
Field, Fruit & Vegetable Crops	\$ 7,010,753	\$ 7,524,398
Aquaculture	\$ 2,853,898	\$ 2,492,235
Nursery Crops	\$ 662,590	\$ 684,716
TOTAL	\$ 54,897,462	\$ 48,675,154

2004 Production Summary



Agricultural Production Gross Value A Ten Year Summary



Livestock, Poultry and Aquaculture

Item	Year	No. of Head	Live Weight	Unit	Dollar Value	
					\$/Unit	Total
Cattle & Calves	2004	16,481	98,032	cwt	\$ 81.66	\$ 8,005,291
	2003	18,050	109,184	cwt	\$ 76.31	\$ 8,331,555
Sheep & Lambs	2004	10,643	11,494	cwt	\$ 76.93	\$ 884,238
	2003	11,607	12,535	cwt	\$ 74.88	\$ 938,584
Poultry & Eggs*	2004	85,000				\$ 2,236,554
	2003	121,894				\$ 3,566,631
Aquaculture	2004		Oysters, Mussels, & Clams			\$ 2,853,898
	2003		Oysters, Mussels, & Clams			\$ 2,492,235
Total	2004					\$ 13,979,981
	2003					\$ 15,329,005

* parent stock hatching eggs

Livestock Products

Item	Year	Production	Unit	Dollar Value	
				\$/Unit	Total
Milk (Market)	2004	2,162,971	cwt	\$15.35	\$33,201,604
	2003	2,109,199	cwt	\$ 11.90	\$ 25,099,468
Milk (Manufacturing)	2004	596	cwt	\$15.20	\$9,059
	2003	970	cwt	\$ 11.82	\$ 11,465
Wool	2004	61,992	lbs	\$ 0.54	\$ 33,475
	2003	65,256	lbs	\$ 0.40	\$ 26,102
Total	2004				\$ 33,244,138
	2003				\$ 25,137,035

Inventories of Livestock and Poultry (Number of Head as of January 1, 2005)

ITEM	HEAD	NUMBER
All Cattle		35,461*
Milk cows and heifers 2 years and over	10,300	
Beef cows and heifers 2 years and over	10,000	
Sheep and Lambs, all		7,749
Poultry		85,000

* Includes cows, heifers, calves, and bulls



Field, Fruit and Vegetable Crops

Item	Year	Harvested Acreage	Ton/ Acre	Total Tons	Unit	Dollar Value	
						\$/Unit	Total
Hay, Grass	2004	1,950	1.75	3,413	ton	\$ 55.00	\$ 187,715
	2003	1,950	2.0	3,900	ton	\$ 58.30	\$ 227,370
Hay, Oat	2004	1,525	2.1	3,203	ton	\$ 77.00	\$ 246,631
	2003	1,525	2.2	3,355	ton	\$ 74.50	\$ 249,948
Silage	2004	2,000	12.0	24,000	ton	\$ 24.00	\$ 576,000
	2003	2,700	13.5	36,450	ton	\$ 21.00	\$ 765,450
Hay, Grain	2004	40	1.0	40	ton	\$ 160.00	\$ 6,400
	2003	300	.40	120	ton	\$ 160.00	\$ 19,200
Pasture, Irrigated	2004	810				\$ 100.00	\$ 81,000
	2003	810				\$ 100.00	\$ 81,000
Pasture, Other	2004	154,000				\$ 29.00	\$ 4,466,000
	2003	154,000				\$ 29.00	\$ 4,466,000
Fruits & Vegetables	2004	210.1					\$ 1,180,939
	2003	183.4					\$ 1,484,407
Grapes, Wine*	2004	110		138.75	ton		\$ 266,068
	2003	74		116.2	ton		\$ 231,023
Total	2004						\$ 7,010,753
	2003						\$ 7,524,398

* Varieties include: Cabernet Franc, Cabernet Sauvignon, Chardonnay, Gewurztraminer, Merlot, Pinot Noir and Shiraz



Nursery Products

Item	Year	Production Acres	Dollar Value Total
Nursery	2004	37	\$ 662,590
Stock, All	2003	41	\$ 684,716



Marin County Department of Agriculture/Weights & Measures

Departmental Mission Statement

Our mission is to serve the public's interest by ensuring equity in the market place, promoting and protecting agriculture, protecting environmental quality and the health and welfare of Marin County's residents.

Following is a description of the department's activities:

Pest Prevention

Pest prevention encompasses several activities aimed to prevent the introduction and spread of exotic pests in Marin County. Pest exclusion focuses on preventing the entry and establishment of exotic pests and limiting the intrastate movement of newly discovered pests. Marin County inspectors monitor all avenues of pest entry into the county. Pest detection is the systematic search for exotic pests outside of a known infested area. The goal is to find infestations of harmful exotic pests and eradicate them before it becomes biologically or economically unfeasible.

Protection of the Environment

Over the years Marin County has developed a program of Pesticide Use Enforcement that includes all the facets that are needed to comply with Federal and State laws and to ensure proper, safe, and efficient use of pest control methods and pesticides for the production of food and fiber and for the protection of public health, safety and welfare, and the environment. This is accomplished by a permit process and monitoring the use of pesticides, investigating pesticide incidents and complaints, continuous enforcement of pesticide use and records associated with that use, collecting and reviewing of pesticide use data, and educating and assisting users of pesticides.

Integrated Pest Management

Integrated pest management (IPM) is a common-sense approach to pest management that uses a variety of methods to control pests. Pesticides may be part of an IPM program, however, effort is focused towards preventing pest problems by controlling conditions which may attract and support pests. Marin County's IPM program is designed to ensure that County departments and everyone applying pesticides to property owned and/or managed by the County of Marin utilize IPM practices, eliminate or reduce pesticide applications where ever possible and take reasonable measures to ensure that long-term prevention or suppression of pest problems has minimal negative impact on human health, non-target organisms, and the environment. The goal of the County IPM Ordinance was to reduce countywide total yearly pesticide use by 75% by weight, as compared to the total pesticide use in 1997. The county has exceeded that goal with current estimates showing a greater than 80% pesticide use reduction.

Product Quality

Marin County inspectors are protecting consumers by inspecting agricultural products for compliance with laws, regulations, and standards and ensuring that businesses are afforded a fair and equitable opportunity to market their products. Inspections are conducted at horticultural nurseries, farmers markets, and organic farms, as well as locations selling wholesale and retail eggs.

Weights and Measures

The Weights and Measures program protects the interests of the consumer and market place to ensure honesty and integrity of routine transactions when products are sold by weight, measure, count or time. This is accomplished through continuous and systematic inspection of all equipment that is used to weigh or measure a commodity. Weights and Measures inspectors test taximeters, scales in stores, gasoline pumps, fabric and cordage meters, electric meters, water meters, livestock and animal scales, vehicle scales, scanner systems for pricing accuracy, and packaged products for stated net contents. Every transaction involving the exchange of goods by volume, count, or weight is affected in a very vital way by some form of weights and measures.



Summary of the Sustainable Agricultural Activities

Sustainability is a method of balancing resource use in such a manner that it provides for current needs while ensuring such resources will be available to meet the needs of future generations.

Organic Food Production, Registration, and Certification

Organic production systems strive to achieve agro-ecosystems that are ecologically, socially, and economically sustainable. Organic farming emphasizes a greater cooperation with nature without reliance on synthetic inputs.

All California organic producers register in their principal county of operation. There are 34 registered organic producers in Marin County, farming 5,188 acres which includes 4,888 acres in pasture, producing a total gross value of 3.581 million dollars. There are 6 registered processors.

Organic commodities produced in Marin County include: apples, artichokes, beans, berries, broccoli, cabbage, carrots, chard, cucumbers, cut flowers, dairy products, eggs, figs, garlic, herbs, lavender, leaf lettuce, lemons, livestock, milk, mixed salad greens, olives, onions, pasture, peaches, pears, plums, potatoes, pumpkins, silage, spinach, squash, strawberries, sunflowers, tomatoes, turnips, vegetable starts, and watercress.

Marin Organic Certified Agriculture (MOCA)

The Marin County Agricultural Commissioner's Office is accredited by the USDA as an official organic certification agency. MOCA serves the local community promoting sustainable farming practices.

Local and statewide consumer demand for certified products is increasing with an expectation by consumers that organic products are verifiable. MOCA was developed to provide a professional service to local individual and business operations engaged in the production and distribution of organically grown commodities. MOCA certification verifies compliance with the USDA National Organic Program standards and documents the operation practices of a sustainable agricultural system. In 2004 MOCA certified 32 growers and 2 processors in Marin and Sonoma Counties.

Biological Control

Biological pest control is the use of natural enemies to help suppress pest populations to economically and environmentally acceptable levels. Once the agent becomes established, control is self-perpetuating, potentially reducing the need to use pesticides. The following are pests found in Marin and some of the methods being used to control them.

Pest

Gorse
Bull Thistle
Yellow Star Thistle
Scotch Broom
Ash White Fly
Italian Thistle
Purple Star Thistle
Klamath Weed
Canada Thistle
Plumeless Thistle
Eucalyptus Red Gum Lerp Psyllid

Biological Agent/Mechanism

Gorse Mite, Seed Weevil
Bull Thistle Gall Fly
Seed Head Weevil, Gall Fly, Hairy Weevil, Peacock Fly
Seed Weevil, Stem Boring Moth
Parasitic Wasp
Seed Weevil
Seed Weevil
Beetle
Mechanical and chemical removal
Mechanical and chemical removal
Parasitic Wasp

Grass Fed Livestock & Livestock Protection

We also developed and now manage a sustainable livestock protection program that provides cost sharing for non-lethal methods of predator control. This includes property improvements such as cross fencing; deterrents like electric fencing and management practices such as guard animals.

And lastly, there is the Marin County Agriculture Department Grass Fed Livestock Certification program whose purpose is to provide local grass fed livestock producers with a program which will provide the local livestock industry with the incentive to pursue innovative and sustainable animal agriculture principles, encourage sustainable agricultural and land management practices, increase marketing opportunities, and promote more natural animal management practices.



Marin/Sonoma Weed Management Area

A weed management area group was formed for Marin and Southern Sonoma Counties in early 1999. The Weed Management Area (WMA) unites individual ownership and public agencies, provides an opportunity to share resources in mapping, planning information and helps control weeds across land ownership boundaries. The WMA has performed a number of weed control projects made possible by the state legislature passing AB 1168 and SB 1740 which provide funding to WMA's. With this funding, the WMA has removed woolly distaff thistle (*Carthamus lanatus*), and purple star thistle (*Centaurea calcitrapa*). Mapped all Marin County roads for certain invasive weeds determined by the WMA, produced an educational brochure, and developed a 'Don't Plant a Pest' program centered around the nursery industry. The WMA works with all landowners to determine the best method of control of each individual landowner's requirements. Where there are sites potentially harboring endangered or threatened species of plants and animals, hand removal is the method of choice. Mechanical and chemical removal of weeds is utilized at other sites. The WMA conducts hand weed pulling field days. Anyone is welcome to come to the meetings and everyone is welcome to help control weeds.

Pest Exclusion

In 2004, Marin County personnel conducted 5,237 incoming plant quarantine inspections. Plant shipments were monitored at Federal Express, UPS, nurseries, ethnic markets, aquatic supply stores, and post entry quarantine. 40 gypsy moth inspections of household goods from eastern states were conducted, as well as 2,013 Glassy-Winged Sharp Shooter inspections on plant material from infested California counties.

15 rejections of plant material were made. Rejected plant material was either destroyed or reconditioned and released.

A total of 23 pests were intercepted. Of those, 8 were "Q" rated, 1 was "A" rated, 1 was "B" rated 8 were "C" or "D" rated, 2 were viable GWSS egg masses and 1 was a Gypsy moth.

The following is a list of the significant pest interceptions:

Scientific Name	Common Name	Rating
Graptostethus manillensis	Lygaeid bug	Q
Homalodisca coagulate	Glassy-Winged Sharp Shooter	B
Lymantria dispar	Gypsy moth	A
Pheidole megacephala	Big Headed Ant	Q
Pheidole sp	An Ant	Q
Technomyrex albipes	An Ant	Q

Q – rating: Quarantine Action

A – rating: State Action

B – rating: County Action

C – rating: County Action at Discretion of the Agricultural Commissioner

D – rating: No action



Pest Detection

1,246 traps were serviced for exotic insect pests (including Mediterranean and Oriental Fruit Flies, Mexican Fruit Fly, Olive Fruit Fly, Gypsy Moth, Japanese Beetle, Melon fly, Vine Mealy Bug, Asian Longhorn Beetle, and Glassy-Winged Sharpshooter). Of the 1,246 traps, 290 traps were placed for the Glassy-Winged sharpshooter in nurseries, vineyards, and landscaped areas throughout the county, and 2 Olive Fruit Fly traps were placed in olive orchards.

Glassy-Winged Sharpshooter

The Glassy-Winged Sharpshooter (GWSS) (*Homalodisca coagulata*) is a serious pest in California. This insect was first observed in California in 1990 and is now found throughout Southern California and portions of the San Joaquin Valley. It is a particular threat to vineyards due to its ability to spread *Xylella fastidiosa*, the bacterium that causes Pierce's disease. Pierce's disease kills grapevines and there are no effective treatments for it. The Glassy-Winged Sharpshooter also spreads other diseases to a variety of agricultural and ornamental plants, having the potential to substantially impact California's agriculture and environment if left unchecked.

To prevent the introduction of this leafhopper into Marin County, staff inspect all incoming nursery plant shipments from infested California counties. A total of 2,013 shipments were inspected for GWSS and 2 viable egg masses were found. Detection traps placed throughout the county are also monitored.

Sudden Oak Death (SOD)

The story of Sudden Oak Death in Marin County began in 1995 with the observation of large numbers of tanoaks dying in Mill Valley. Mortality of coast live oak and black oaks was also noticed, here in Marin as well as in other coastal counties especially Santa Cruz and Monterey. In 2000, University of California researchers identified the cause of SOD as a previously unknown fungal-like pathogen, *Phytophthora ramorum*. Currently SOD has been confirmed as naturally occurring in 14 northern and central coastal counties.

In 2001, in order to control the spread of SOD to uninfested areas, California Department of Food & Agriculture initiated a state quarantine establishing restrictions against *Phytophthora ramorum* and its hosts. The quarantine was revised in 2003 to allow unrestricted movement of host material within the regulated counties. Federal regulations established by the United States Department of Agriculture are also in place regulating interstate movement of host material.

SOD hosts include many of the native trees and understory plant species associated with oaks and tanoaks in the native woodland, such as bay laurel, madrone, and rhododendron. In addition it has been found in nursery settings (both within and outside of quarantine counties where it is naturally occurring) on ornamental plants such as camellias, and viburnum, and consequently numerous cultivated nursery plants have been added to the host list and state and federal quarantines.

Symptoms and damage vary among the hosts, and infection may occur on the trunk (bark cankers on oaks and tanoaks), branches, twigs, and or leaves, with cankers often causing mortality by girdling the trunk. Symptoms on other hosts vary from leaf spotting to twig girdling, and may or may not cause mortality.

Phytophthora ramorum has been found to prefer cool, wet climates, and the spores may be spread through soil and rainwater, as well as infected plant material. Spores collect on the leaves of foliar hosts such as bay laurel and rhododendron and may be dispersed through the air under moist and windy conditions.

Marin County was part of a SOD hazardous tree removal program funded by the state for the last three years. Under this program, dead and dying trees found along roadways and trails were assed to determine the presence of *Phytophthora ramorum*, and subsequently removed. The County's Public Works department removed over 500 roadside trees to ensure public safety. Numerous trees were also removed under the program from various county and state park and open space land.

The California Oak Mortality Task Force (COMTF) was established in 2000 to research and understand the disease process in an effort to manage and control the spread of *Phytophthora*. More information with links to many other sites may be obtained at www.suddenoakdeath.org

Farmers Markets of Marin County

The purpose of farmers markets are to allow local producers to sell their certified commodities direct to the public. There are 27 certified producers that have been issued certificates in Marin County. The following 8 Farmers Markets have been certified by the Agricultural Commissioner to market local produce in Marin County.

Civic Center Farmers Markets

Civic Center, San Rafael

Thursdays – 8:00 am – 1:00 pm

Sundays – 8:00 am – 1:00 pm

Open All Year

Old Town Novato Farmers Market

Down Town, Novato

Tuesdays – 4:00 pm – 8:00 pm

April – October

Sausalito Farmers Market

Sausalito Ferry Landing

Fridays – 4:00 pm – 8:00 pm

May – October

Pt. Reyes Farmers Market

Toby's Feed Barn

11250 Hwy 1, Pt. Reyes Station

Saturdays – 9:00 am – 1:00 pm

June - October

Fairfax Farmers Market

Broadway, in Fairfax Theatre

Parking Lot

Wednesdays – 4:00 pm – 8:00 pm

May – October

Downtown San Rafael Farmers Mrk

Fourth St., San Rafael

Thursdays – 6:00 pm – 9:00 pm

April - September

Corte Madera Farmers Market

Corte Madera Town Center

1554 Redwood HWY

Wednesdays – 12:00 pm - 5:00 pm

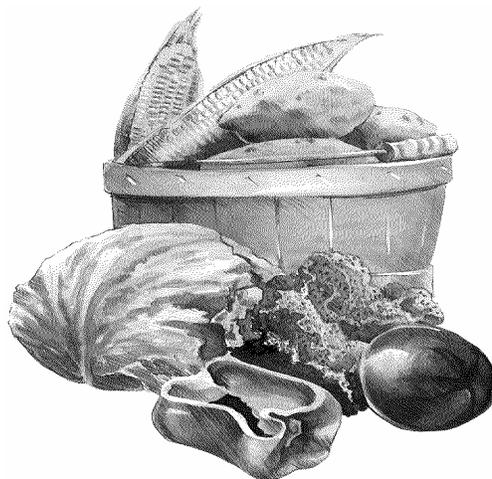
Open All Year

Larkspur Farmers Market

Larkspur Landing Circle

Saturdays – 10:00 am - 2:00 pm

May - October



Department Staff

**Agricultural Commissioner
Director of Weights and Measures**

Stacy K. Carlsen



**Deputy Agricultural Commissioner
Deputy Director of Weights and Measures**

Fred W. Crowder



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